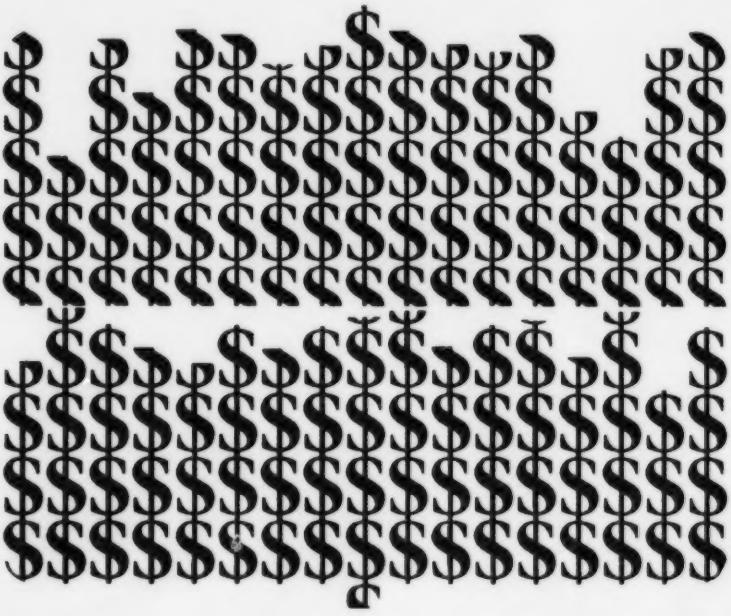
THE ECONOMICS OF LEGAL INFORMATION



New Technologies and Access to Legal Information

by Rowland Lorimer and Leigh Webber

Canadian Law Information Council

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THE ECONOMICS OF LEGAL INFORMATION

A Series of Monographs

New Technologies and Access to Legal Information

Rowland Lorimer
and
Leigh Webber

CANADIAN LAW INFORMATION COUNCIL

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Preface

For its entire thirteen-year history, the mandate of the Canadian Law Information Council ("CLIC") has been the same: Improve access to legal information. The accessibility of legal information depends on many different elements, including among others the quality of the editorial tools provided by publishers (indexes, headnotes, retrieval software and so forth); the readability of the language used in drafting the information; and the legal rules relating to Crown copyright in reasons for judgment and statutory materials.

This series of monographs on the *Economics of Legal Information* is aimed at the role of economics in determining the accessibility of legal information. It is focussed primarily on the ways in which the new computer technology has changed the economics of legal information. The advent of centralized computer databases of primary legal information, established by private enterprise, has created "private" law libraries which are inaccessible to those who cannot afford online charges. In contrast, increases in the efficiency of legal research brought about by the computer may enable practitioners to offer legal services at a reduced cost.

These changes demand our immediate attention if the users of legal information are to benefit from the new technology; if "access" is truly to be improved. No sooner do we attempt to understand the ramifications of one technology, though, than another makes its appearance: the compact disk, which can store some 150,000 pages of text, threatens to supplant the centralized database

systems to which we are now accustomed. How can the legal profession, not to mention law librarians, professors, and others, cope with this change? How will this confusion improve accessibility? How will legal publishers respond to new market forces, and new demands from an increasingly computer-literate consumer?

This series of short works is a response to these questions. We hope that it begins a useful debate in an important and difficult area.

Martin Felsky, Ph.D., LL.B.,
Director, Computers and the Law

Introduction

This monograph by Professor Rowland Lorimer and Leigh Webber is the first in a series of works on *The Economics of Legal Information*. It takes a broad look at the implications of the new technology for the provision of legal services by examining how changes in the technology have altered significantly the way in which we treat "legal information" as an economic good.

It is interesting to note how, with the passage of time, and with the remarkable expansion of high tech industries in Canada, the once futuristic views of commentators like Harold Innis and Marshall McLuhan seem quite natural, even conservative. Professor Lorimer and Mr. Webber build on the vision of these cultural historians and apply some of their own perceptions to the legal information field.

Professor Rowland Lorimer is Associate Professor of Communications and Director of the Centre for Canadian Studies at Simon Fraser University. Leigh Webber has recently become a consultant in legal information systems. For the past five years, he was Associate Director of the Continuing Legal Education Society of British Columbia. He has also served on the CLIC Computers and Law Advisory Committee. The Council is indebted to both of them for their valuable collaboration.

NEW TECHNOLOGIES AND ACCESS TO LEGAL INFORMATION

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Introduction: Information and Western Society

New information technologies present two fundamental implications for societies and institutions. The first is the specific adaptation to new technologies and their capabilities -- what can each machine do and how can its capacities be used in the workplace. The second implication is the adjustment to a new information structure created by these technologies and their direct and indirect consequences. The focus of this paper is on this second implication.

We begin with some historical background on the treatment of intellectual property, contrasting it to the treatment of other forms of property. We end that review by noting the emergence of an information economics alongside new information technologies. After a nod to the professions in general, we then turn to the presently operating information economics of the legal profession.

With those three elements of introduction in place we step back to examine how print-on-paper has organized our social space and the way we use time when performing information related tasks. We contrast those dynamics with the potential of electronic information to reorganize time and space relative to society generally and to the legal profession in particular.

Our major conclusions are that electronic information will likely spread the types of tasks undertaken by lawyers more evenly across the profession providing new opportunities, especially to smaller firms. It will also encourage the development of new specialized services to

the profession which may be undertaken by young lawyers otherwise facing unemployment. However, because a quite fully developed information economics has already been established in the profession, and it is one which fits well with the capabilities of the new technology, profound changes to the profession and to the manner in which the profession interacts with society, are unlikely. The most significant impact of information technology may well be to counteract the trend towards ever larger firms. Contrary to the experience in the academic and general community, information technology may well have a levelling effect on the availability of information between large, well financed entities and smaller, less affluent ones.

Historical Background

The treatment of information in society has a distinctive history which is somewhat at odds with other elements of society and present trends. Specifically, protection of the interests of creators, in other words the owners of intellectual property, has been weak in comparison with protection of the interests of the public.[1] This has meant that the public interest in the creation and dissemination of information has been more closely guarded than have the rights of creators to benefit from the sale of that information. The history of copyright begins in censorship. In the 19th century in Britain, copyright law and paper taxes were designed primarily to ensure an orderly distribution of the "right" ideas to the "right" segments of society.

The most visible present-day anomaly in the management and acceptance of ownership rights of intellectual

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[1]Keyes, F. and Brunet, C., *Copyright in Canada: Proposals for a Revision of the Law* (Ottawa: Consumer and Corporate Affairs, 1977).

property is that very powerful democratic institution, the public library. The public library is an anomaly in the following sense. In private enterprise, companies regularly acquire licences to manufacture "under licence" devices which make use of intellectual property. For example, certain Japanese television manufacturers have purchased (for a very small fee) a licence to build in a Telidon-based device into their television sets in order that Japanese characters can be reproduced with visual accuracy. Another example; Lea and Perrins' Worcester-shire Sauce is manufactured "under licence" in Canada for the Canadian market.

The uproar over returning longer term patent protection in Canada to drug manufacturers gives an indication of the size of the economic stakes involved with intellectual property. The reluctance of governments to make the results of polls public provides an indication of the political power of that "intellectual property." Until very recently no such licence for multiple use was obtained by libraries.

In contrast to the treatment of patents and proprietary information, information made public has difficulty reaping a comparable level of recognition and reward. For example, only in 1986 did Canada take steps to recognize the rights of published Canadian (not foreign) authors through the creation of a Public Lending Right fund. The purpose of this fund is to provide remuneration to Canadian authors for the multiple use their works are likely to receive by virtue of being made available in public libraries.

However, change is in the works. At the present time, in addition to adapting the *Copyright Act*[2] to new informa-

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[2] *Copyright Act*, R.S.C. 1970, c. C-30 as am.

tion technologies, revisions are designed to enhance the creator's rights, that is to say, the individual interest. It appears that those designing the revisions have greater faith than did their forbearers that market forces will satisfy the public interest.

In summary, in the general case in society, information has only lately emerged as an economic commodity to be handled like other commodities. But an emergent it is. As it emerges as a commodity, it imposes upon us a new economics of information. Information costs that previously have been buried within the cost of something else -- providing education, the cost of a machine, the cost of professional services or the cost of drugs -- are being recognized. Laws, common practice and institutions are being brought into line with that recognition. Rampant photocopying is on the decrease under threat of lawsuit.

The government is encouraging the formation of copyright collectives. Writers are paying much greater attention to their contracts, to rights extending beyond customary rights in the printed work and to the use of copyright materials. Publishers are more assiduously pursuing the sales of rights. And the *Copyright Act* is being changed.

What makes these developments in information economics doubly interesting is that they are taking place at the same time as the development of new information technologies. It is an open question whether these technologies are causes or effects of these rather fundamental changes in the status of information in society. They may be both. However, it is clear that both the technology and economics of information are changing dramatically and together they appear to be having substantial effects on the role and use of information in society.

Information and the Professions

In contrast to the general case, the professions of law and medicine, and to a lesser extent others such as accounting and engineering, have been more successful in creating an information economics similar to that governing the use of proprietary information. They have done so by obtaining an effective monopoly, not over access to a body of knowledge, but over the permission to apply it in society. In the case of law the mechanism is a statutory right to be paid for providing legal services. In medicine it is the statutory right to practice. Whatever the mechanism, the profession gains an effective monopoly on the application of a certain body of information in an appropriate setting. The associated institutions of the professions, the hospitals, courts and government bureaucracy, police that monopoly.

Information and the Legal Profession

The presence of numbers of lawyers in key positions in business and government speaks to the general value of the training they receive in the pursuit and application of information. However, within the profession itself there is a more stringent regime for the application of the information skills of the lawyer.

The fees which a lawyer collects pay for at least six different sorts of information functions. First is the background familiarity with the information structure represented by the processes of law. Second is the lawyer's ability to understand a body of information, the law pertinent to the case. Third is his or her ability to synthesize, to relate the facts of the case to the pertinent law. Fourth is access, if necessary, to the courts. Fifth are the relative talents of the lawyer. Sixth is the physical information infrastructure within which the lawyer works. A lawyer within a firm which has a

multitude of labour saving facilities, such as a complete library on the premises, means a saving in time and a more efficient practice.

Direct hourly charges cover other sorts of information functions. These include a) the time to take instructions from the client, b) the time to consider the case, that is, to apply background and understanding to the case at hand, and c) the time to present that information in the proper context to the proper authorities.

The lawyer-client relationship is highly oriented to individual payment for service, more commonly known as user-pay. About the only thing the user, that is the lawyer's client, does not pay for is the courts, the infrastructure to allow his case to be heard. That is paid for collectively by the state. Society has a greater interest in setting the apparatus of law in place for the orderly consideration of legal disputes than do the individual users of such an apparatus.

This quick overview of the role of information in the legal profession illustrates one fundamental point. In contrast to the general situation with respect to the valuation and use of information, within the legal profession an information economics has long been established. Thus, while the lives and income levels of authors of trade books will likely be affected considerably by the emerging information economics, and the dissemination and use of general information may be in for some rather dramatic changes; neither the legal profession as a whole (which is not to say its individual members) nor its clients are likely to be affected profoundly. This is because of the prior establishment of an information economics within the practice of law, an economics which technology makes almost unavoidable. What then of changing technology itself? And what also of changes within the profession? First, the former.

Information Technology and Information Usage

Information technology organises space, time and the division of labour. Each medium, whether it be clay, parchment, print-on-paper or electronic coding on magnetic disk, imposes its own bias upon the organization of society and its institutions.

Print and Space

Print-on-paper organizes space in the following way. A complex, literate society which operates on the basis of the printed word demands the allocation of considerable resources to organize the recording, storage and retrieval of the information necessary for its continuance. The medium itself structures the recording, storage and retrieval processes. (In contrast, oral societies use the collective memory of the tribe which is automatically adapted with changing conditions.)[3]

Print-on-paper has affected the presence and structure of institutions such as libraries and universities. The books, papers, etc. upon which information is printed must be housed in a protected environment. Libraries have been set up to serve just that purpose. Offices and homes (in some cultures) are also satisfactory for limited storage and access. (The attention given to the burning of books, for instance, the fire in the Dalhousie Law Library, as well as the finding of lost tomes such as those deposited in Britain and thought lost forever in the burning of the Canadian Parliament Buildings, illustrates how vulnerable we feel when a print repository is violated by the vagaries of building design and the elements.)

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[3]Goody, J., *The Domestication of the Savage Mind* (Cambridge: University of Cambridge Press, 1977).

With respect to education, the capacity to record and store words which is inherent in print-on-paper has allowed institutions of higher learning to arise where great attention is given to interpretation by expert readers. Print-on-paper has also determined many of the internal processes or patterns of scholarship within such institutions.

The characteristics of print-on-paper have affected the behaviour of individuals with respect to information storage and access not just within educational institutions. While printing is cheap, it is neither cheap nor compact enough for everyone to own or to store all the information which he or she may need. Hence print-on-paper maintains the demand initiated by clay and parchment, for the type of library that is a large building with a controlled environment where people can come to examine manuscripts permanently housed within its walls. The materiality and costs of print-on-paper, while allowing for a broad dissemination of information, have forced individuals and society to combine a user-pay system (the purchase of books) with a collective system in the institution of the library. Free access to a fairly unlimited selection of knowledge available in print has often been touted as an engine of progress.

The materiality and costs of print also have forced society to make decisions on where to place these collective institutions. Generally libraries are placed where they are closest to the greatest number. This reinforces centralization and hampers access by those in remote communities to the libraries of information. This in turn impairs sophisticated analysis and blocks access to detailed knowledge on their part. To use a medical example, the trip of a sick person to the hospital in the big city for diagnosis and medical intervention illustrates the centralized spatial organization of information and expertise. Diagnosis via telecommunications which accesses either or

both expertise and recorded and retrievable information (the latter available on a computer) illustrates the degree to which new information technologies can redistribute and decentralize information access. Although the computer may have encouraged centralized storage of information, it has facilitated decentralized access to that information. This separation of storage and access cannot be achieved in a traditional print-on-paper library.

In short, on top of the quite fundamental organizing attributes that are beyond the scope of this paper and have been outlined elsewhere by Innis,[4] McLuhan,[5] Goody[6] and Eisenstein,[7] the medium of print-on-paper has

1. been a centralizing force on information and its use in society. It has aided the formation of metropolises which have organized the resources of vast hinterlands;

2. favoured the development of large institutions with controlled environments to house sufficient amounts of information to be useful to a large population;

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[4]Innis, H., *Empire and Communication* (Toronto: Oxford University Press, 1950); Innis, H., *The Bias of Communication* (Toronto: Univ. of Toronto Press, 1951).

[5]McLuhan, M., *The Gutenberg Galaxy* (Toronto: University of Toronto Press, 1962).

[6]Goody, J., *The Domestication of the Savage Mind* (Cambridge: University of Cambridge Press, 1977).

[7]Eisenstein, E.L., *The Printing Press as an Agent of Change* (Cambridge: Cambridge University Press, 2 Vols., 1979).

3. created a combination of user-pay and a collective access to information; and,

4. favoured the development of institutions to study texts.

Print and Time

Print-on-paper also organizes time and contributes to a particular division of labour. The retrieval of information "relevant to the task at hand" has traditionally been quite difficult and time-consuming. It is not that access is restricted (to any but the physically disabled) but more that information is difficult to locate and summarize precisely. It also takes a sophisticated individual to understand what is and what is not appropriate to the task in question, to know how to track down the appropriate information and to evaluate the quality of the information. In other words, information retrieval within print-on-paper systems at any significant level of sophistication has demanded a high level of research skills and a significant amount of time.

Such skills are then combined with the accumulated knowledge of the researcher to determine relevance and redundancy. Some possibility exists for dividing labour, but search and retrieval by a naive researcher is not reliable. The analyst must undertake much of the legwork.

The spatial organization of print-on-paper also has its effect on time. Frequently consulted information may be available in the researcher's private collection. However, infrequent consultations have required a person to travel to the information source and, until the past two decades, to study and extract the relevant information at that central location. Photocopying diminished some of that painful extraction process.

The bibliography and its derivatives, publications which cover a fairly wide spectrum of materials relevant to a specific area of knowledge, represent attempts to lessen the time required for search and retrieval operations. The legal research counterparts to bibliographies are the legal digests and case reports. While the case reports abstract each case, the digests review and organize information based upon the parameters suggested by the structure of law and jurisdiction. With a sufficient market and the vigour of private entrepreneurship in creating legal digests, there is no lack of them. Indeed there is substantial overlap.

To make a final point, print-on-paper encourages specific job functions and division of labour. The production of legible, well formatted text has traditionally been separate from the creation of the text itself. Most separate are the printer and the author. Less separate are the author and the typist. The technologies for duplication of printed text have also had their own organizing influence. From typing with carbon paper to photocopying, from movable and then hot type to digital signals, each has organized time, division of labour, and the selection of ideas which receive wide dissemination and long term storage.

Electronic Information, Time, and Space

With this rather extensive review of the present technology of print-on-paper, some of its derivative behaviour and associated institutions patterns, we now turn to a consideration of the potential for change inherent in electronic information technology. Our discussion will focus on spatial, temporal and division of labour effects of electronic information technologies on the organization of information access, and usage in general, and on those functions within the legal profession in particular.

The Reorganizing Potential of Electronic Information

From one perspective, the reorganizing potential of electronic information is not all that great and is inherently both conservative and preservative of processes now established. For example, were we to convert our recording of all information into dramatic presentations, our society would be radically changed. Electronic information technologies preserve much of what presently exists. We are still dealing with text, albeit for storage purposes electronically coded rather than visually reproduced on paper. Computers and their databases will receive the same care and maintenance that collections of books have received in the past. Just as libraries are vulnerable to the elements so computer coded information is vulnerable to unapproved access, physical or electronic theft, destruction in a number of different ways, and so forth. By preserving the text basis for information representation, computers also preserve text-related institutions such as schools, universities, libraries, the courts, financial institutions, etc. Given the continuance of present patterns of information usage, it is probable that the user will own frequently consulted information but that he or she will not own less frequently consulted materials.

This notwithstanding, electronic technologies, in theory, reorganize space most obviously by making it possible for information rather than information seekers to travel. Information can travel for very little cost; moreover, the cost differential for greater versus lesser distance of travel is almost negligible. The mobility of information also causes no loss of access to other users. Such a property is an extremely powerful centralizing device for the "information providers" and an equally powerful decentralizing device for users. The factors which make the mobility of information feasible combine new technologies with one, very significant, old communications technology. The telephone system, an almost universal

distribution system, is already available to carry electronic information virtually to any point in any developed country.

The dual centralizing and decentralizing tendencies of the technology make affordable the designing of aids to access because of anticipated or actual increases in frequency of use. The database developer is a new job category. Together with the capacity of the technology to scan and retrieve, reasonably efficient systems have been designed (and are continually being improved) that allow access choices to be made at the point of reception. Crude (but presumably increasingly less crude) organizations of material can thus be conducted by machine. The costs of these first level searches are cheapened enough to make them worthwhile for any person being paid to find information. While not perfect, their product is, at least, somewhat predictable.

There are two key ideas in the above paragraph. The first is captured by two words, "being paid." The second is to be found in the notion of an increasing sophistication in the packaging of information and the derivative question of ownership of such packages. In regard to the issue of payment, with print-on-paper there is a choice of whether to spend money or to spend time to retrieve information. You hire a researcher if you can afford one or you do the research yourself if you cannot. The latter may be inefficient; you may have to travel and you may have to learn research skills. But with electronically encoded information that choice is lost. Information cannot be extracted from a computer without using computer and communications equipment.

For some number of years, spurred on by labour and other groups and aided by philanthropy, governments have funded public, free-use libraries of print-on-paper materials. However, they are balking at extending their

services to cover all costs of access to electronic databases.

Commonly, certain database subscriptions are taken out by the library. However, it is up to the user to pay the costs of an individual search; i.e., the rate charged by the private entrepreneur who owns the database as well as the communication charges.

With electronic information, expenditures of time are converted to expenditures of money. Time is a most egalitarian resource: the poor have just as much as the wealthy. In contrast, computer based information offers speedier searches and is attractive to those with little time and ample purses. To the pauper with time to burn, computer based information is inaccessible. The currency of electronic information access is hard dollars.

When time, which is purely under the control of the user but is scarce and finite, is converted to money, which may be in abundance for some, new services will arise to respond to the ability of some to pay. It would appear that this is where the greatest potential lies both for information entrepreneurs to inaugurate services and for social inequities. Indeed, a layer of private information entrepreneurs who are providing processed information is already emerging. And the economics with which they must work, based upon individual access fees, is much more attractive than those of the traditional publisher who prints and sells once to a number of free-use libraries.

Such a change in media impairs the ability of those who lack funds to obtain information. It also alters the nature of information as a public good not totally subject to the laws of the marketplace. Over the long term, access to electronic information will be restricted to those who have access to money. In the best of all possible

worlds, governments will increase access subsidies, such as legal aid, to information have-nots. But in the approximations of the ideal within which we customarily live, electronic information will probably increase the gap in access to knowledge and all other kinds of information between the rich and the poor.

On the second point, with regard to the actual ownership of information, it appears, as with many natural resources such as oil, air and water, that there will be evolving negotiations. At present, information packagers are charging for the service of providing databanks which can be searched. As databanks become established and profitable, the creators of the individual pieces of information which make up a databank are becoming interested, just as are governments with respect to other natural resources, in sharing the benefits of the sale of that information to others. While, in society in general, this phenomenon is just beginning to emerge, legal publishers are already charging for the inclusion of their material in databases. Such developments have considerable potential to exacerbate "free" access to information. There is every possibility, with respect to general information, that a private layer of sophisticated information will become available to the moneyed few and that public access will be to a second level of information somewhat outdated by what is accessible to those able to pay the going fees. An interesting side-issue in this development is how various governments will handle the dissemination of the information which they gather at great expense. As information-gathering costs rise, governments will be under increased pressure to recoup some of those costs through access fees.

Electronic Information and the Legal Profession

In the legal sphere, electronic information has the profoundly democratic effect of allowing a greater number

of lawyers in a greater variety of locations and situations to have equal access to legal research materials. Mega-firms have enjoyed very significant economies of scale, especially with respect to research libraries. Small firms cannot afford massive law libraries, and must therefore either spend more time doing legal research at the courthouse library or do without the research and provide a lower level of service to clients. Through computers and telephone lines hooked into databases, necessary legal research will cease to require a centralized location. The determining factor of location-affected law will increasingly be clients' needs, and resulting from that, developed expertise. However, while computer/communications capabilities may make it possible for hinterland lawyers to practice esoteric law, that information access will continue to need to be combined with appropriate experience to attract esoteric clients. There are already trends indicating that new and capable lawyers are becoming extremely specialized, taking up residence in resort communities, and consulting infrequently but for very high fees.

The notion that the technology itself will reduce costs substantially is pure speculation. If costs are reduced it is more likely that it will be a result of greater competition among lawyers. Much has been made, especially by the hardware manufacturers, of expected cost savings in information storage, retrieval and processing. The jury is still out on those savings. Like nuclear energy, the costs of changing technologies are unknown for a considerable time after a commitment is made. Once information is in electronic form, a variety of new charges arise -- the costs of storage, retrieval, reorganization (editing), and redistribution -- alongside old and evolving costs such as royalties and public lending rights. Many of these, for the foreseeable future, will be assessed to the user.

Therefore, while in the short term smaller firms which charge less per hour than larger firms may be able to take on new tasks and attract clients, over the longer term they will find their costs of electronic access driving their hourly fees up. Over the longer term it will be surprising to see any net savings. What makes the shift to electronic information technologies attractive is not savings but the increased ease with which information can be manipulated in an expanded variety of ways. What makes the change inevitable is the increased numbers of individuals in the profession who will have greater ease of access to all levels of information.

Will electronic technologies change the lawyer-client relationship? It is dubious. Attempts to socialize the user-pay system through substantial increases in access to legal aid seem unlikely to succeed and the basic user-pay system will probably remain. Electronic technologies do not challenge but rather reinforce the user-pay system by increasing the numbers of lawyers who can practice different kinds of law. In a world where the general public interest holds less sway than the interests of specific groups, (i.e., lawyers) user-pay is reinforced.

The possibility of electronic databases and electronic database users being located anywhere with adequate telephone facilities will have an effect on the placement and size of legal firms. Overall, to allow for personal contact, there will be a shift closer to a firm's clients, which may or may not be any physical move at all. Overall, the technology may appear to encourage a downsizing, as large firms no longer are necessary to produce the volume of business necessary to support an in-house information infrastructure. However, the increasing size of corporations, which is the result of increased corporate concentration overall, may easily override the flexibility the technology provides.

Quite a different influence of electronic technologies is the differentiation of some processes and the integration of others in office procedures. With respect to integration, the function of the typist to re-enter words to create either paper copy or to record them permanently in a suitable form is being challenged by the ease of the professionals composing their messages on the computer in the first instance. Lawyers are also beginning to employ personal computer tools in their own creative work. Expert systems, document generation software, outliners and style checkers are some examples.

With respect to differentiation, the capacity of machines to perform certain aspects of a professional's work is stimulating an analysis of the components of the work of a professional in search of efficiencies. Derivative from that analysis are already arising new services as some, sometimes in face of unemployment, become adept at using the machinery to provide valuable services. In concrete terms, the possibility of an expanding number of legal research firms being established, as distinct from on-line information services, to conduct research on behalf of practicing lawyers is quite probable. Such a development represents a specialization of function within a lawyer's activities and an extension of the role of the publisher of legal materials. It creates a personalized, on-demand service of information which can be tailored to the needs of the specific situation. With such a differentiation, practicing lawyers can concentrate their efforts on the presentation of that information. Even there they have assistance in the ease of creating and organizing a presentation with the word processor.

Conclusion

In a previous paper Lorimer[8] has outlined some of the major implications of new electronic information technologies in society in general and for social science and humanities scholarship in particular. The major conclusion of that paper was that there is emerging a private information layer which will *a)* magnify the difference between information haves and have nots and *b)* set aside the role of information as a public resource. Interestingly, it would appear from this exploration that within the legal profession the opportunities which are being created by electronic technologies for information entrepreneurs will spread information more evenly across the profession rather than restrict its flow. This adds a democratic element to the profession and a flexibility which will assist the profession to maintain its preserve in the application of information to legal issues. At the same time it will undoubtedly contribute to an increased restriction of legal information to the legal profession. Even if search processes are made easier, access will require user fees. Time will not be an accepted currency. That will call for socialization of legal services and resultingly an expansion of the profession. However, the long term effects of erecting barriers to information, legal or otherwise, are not exactly predictable. From this vantage point, they do not appear to promote equity.

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[8]Lorimer, R., "Implications of the new technologies of information," [1985] 16(3) *Scholarly Publishing*, 197-210.